Venous Murmurs in Cirrhosis of the Liver.—Investigations by G. Catti (*Ztschr. f. klin. Med.*, 1907, lxi, 269) have shown that venous murmurs adible over and in the neighborhood of the spleen are relatively common in cirrhosis of the liver, occurring in one-fifth to one-sixth of all the cases; murmurs audible elsewhere, as in the epigastrium, near the xiphoid, above the umbilicus, etc., are very uncommon and are still unexplained. His first patient had hepatic cirrhosis to a marked degree; the veins about the umbilicus were somewhat dilated, those of the rest of the abdomen very markedly. The xiphoid, mammary, and inferior epigastric veins were markedly dilated and connected by a number of branches. Several centimeters to the left of the umbilicus the hand could feel an intense thrill, most marked over the left inferior epigastric vein; it was easily heard over the entire abdomen, but varied in intensity and character in different places. Compression of the left epigastric vein below the point of greatest intensity caused a disappearance of the murmur; below this point the vein was narrower than farther up. The murmur was evidently caused by the blood flowing suddenly from the relatively narrow inferior epigastric vein into the more dilated superior epigastric vein; the junction of the deep and superficial inferior epigastric was immediately below this point, increasing the pressure, and the blood pressure was still farther increased by the stasis in the portal vein. In the case of his second patient a venous murmur was audible but not palpable immediately below the ensiform; it was transmitted upward along the sternum. The cause of this he found in the junction of the para-umbilical veins, or probably of the termination of the umbilical vein in the larger xiphoid vein, or finally of the deep left epigastric vein into the para-umbilical veins. These murmurs, therefore, are due to the blood flowing under considerable pressure from a relatively narrow vein into a larger one, in which the pressure is considerably lower; they are murmurs of stenosis.

SURGERY.

UNDER THE CHARGE OF

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The Surgical Treatment of Prostatic Hypertrophy.—Legueu (*Annal. de la policlin. cent. de Bruxelles*, 1907, vii, 19) says that perineal prostatectomy is less grave, but does not always cure; while the suprapubic operation is more grave, but cures completely when it does not prove fatal. Legueu prefers the latter, and considers it the operation of choice in the greater number of cases that are suitable for a prostatectomy. He considers, however, that the perineal operation should not be abandoned, but should be reserved for many cases in which it would be rash to attempt the high operation. The indications for the two operations are considered from the standpoint of the prostate and from that of the patient.

On the part of the prostate the volume is most important. The larger the prostate and the greater the prominence in the bladder the stronger the indication for the high operation. The removal of a large gland is always difficult by the low operation, and it is often impossible to make it complete. The high operation is also indicated whenever there is an important median lobe. One should reserve for this operation those prostates which are frankly enucleable, that is to say, the adenomatous, and should leave for the perineal operation those with diffuse enlargement, indefinite outline, and firm consistency. By the perineal route piecemeal removal is more effective than by the suprapubic.

On the part of the patient the contra-indications are concerned with constitutional conditions lowering the resistance of the patient. The suprapubic operation, constituting a grave trauma, should be reserved for patients in good condition, those who are young in spite of their age, without marked obesity or atheroma. Those with opposite conditions are more liable to emphysema and pulmonary congestion than with the perineal operation. In infected patients who have or have had fever, the perineal operation will give dependent drainage, while the suprapubic operation only increases the dangers. If the genital functions are to be preserved the high operation should be done. The latter, therefore, should be performed, except in those patients with very small prostates, in fat subjects, and those with infections.

Comparative Results of Perineal and Suprapubic Prostatectomy.—POUSSON (*Annal. des maladies des organes genito-urinaires*, 1907, xxv, 241), after having been a warm partisan of the perineal operation, justifies his change to the suprapubic in an analysis of 50 personal total prostatectomies, by the two routes, 28 perineal and 22 suprapubic. The mortality of the first group was 4 deaths (14.3 per cent.) and of the second 5 deaths (22.7 per cent.).

Although the advantage as to mortality was slightly in favor of the perineal operation, Pousson argues for the suprapubic for several reasons. The anatomy of the latter is the more simple, the only obstacle being the peritoneal cul-de-sac, which is easily avoided. By the perineal route the bulb of the urethra and the rectum are the structures most difficult to avoid. That wound of the bulb may be grave Pousson has had the opportunity of proving in several cases. Opening the rectum is more grave, and one is never sure that it will not occur at the time of the operation or later from the separation of a sphacelus. Pousson, in his 28 perineal prostatectomies, perforated the rectum twice during the operation, while in a third case perforation occurred secondarily on the tenth day from mortification of the tissues. The last closed spontaneously, but the first two gave rise to permanent fistulæ.

The enucleation by the suprapubic route has always been easy and rapid, while by the perineal it has often been tedious and laborious. It is particularly in what Pousson calls the pelvic form of the enlargement that the perineal operation is difficult. In this form the posterior superior angles of the gland push backward, forming two prolongations on the sides of the pelvic cavity. It was frequently necessary to remove the prostate piecemeal by the perineal operation, while by the suprapubic he was always able to remove it in two fragments or as a whole.

The most frequent obstacle in the perineal operation was excess of fat. In such cases the suprapubic route permits a larger incision, which facilitates the enucleation and allows the introduction of the whole hand into the bladder. The excessive hemorrhage which many surgeons fear in the suprapubic operation Pousson has found in only two cases. Both required a tampon of the bladder, after the patient had been put back to bed, but both recovered. While the drainage is better after the perineal operation, he has had very little trouble on this account in the suprapubic. The advantage from the standpoint of sepsis is in favor of the suprapubic operation. The average time for the healing of the wound was 5.5 weeks in the perineal operation and 4.2 in the suprapubic. Pousson makes a large opening in the bladder, and aims to expose the field of operation to the eye by means of retractors and an electric lamp. With a metallic hood having a lateral opening to which is fitted a rubber tube, he has been able in several cases to drain through the suprapubic opening for five or six days without a change in or saturation of the dressing by urine. At the end of that time he drains by a catheter in the urethra.

A Contribution to the Anatomical and Clinical Study of Cancers of the Prostate.—MOTZ and MAJEWSKI (*Annal. des maladies des organes genito-urinaires*, 1907, xxv, 161) base their study upon 60 cases, of which 26 were diagnosticated clinically, and 30 only after autopsy. Of the 26 diagnosticated clinically, a considerable increase in volume was rare (2 cases), a moderate increase occurred in the great majority (17 cases), in 4 the gland was of normal size, and in 3 it appeared to be smaller than normal. The size has no relation to the gravity. Some small prostates showed considerable invasion of the corresponding glands and often enormous tumor masses along the vertebral column. The diagnosis depends chiefly upon the irregularities and the hardness. Variations, however, in the consistency are frequent. In some cases in which a vesical tumor was recognized, it was found to be only a propagation of a prostatic tumor which was not recognized. The urethra was invaded in only 7 cases (27 per cent.). In only 1 case was involvement of the bulb and of Cowper's gland observed. Of 38 cases of tumor of the bladder one of the writers has found that two-thirds (28) were originally prostatic tumors, and this frequency of propagation from the prostate to the bladder is generally admitted. Of the writers' 26 cases diagnosticated clinically, in 20 the seminal vesicles were involved. The lymphatic glands were invaded in nearly all cases, only 1 showing a negative result from this standpoint. Not a single case was found to have invaded the rectum, and only 3 could be found in the literature. This speaks against the existence of the prostatorectal lymphatics claimed by some authors. In 3 cases the peritoneum was invaded. As to metastatic deposits the observations of the writers are not precise. They found mentioned the following cases: 3 to the liver, 2 to the pleura and lung, 1 to the kidney, and 1 to the femur. They found 2 cases, not included in the 26, in which vesical cancers invaded the prostate.

Of the writers' 60 patients, in the great majority the first symptoms were those of prostatism, 8 presented complete retention as the initial symptom, and 38 began with the ordinary dysuria of prostatics, and incomplete evacuation of the bladder. In 5 cases neuralgia appeared as the first symptom; in a few hematuria was the initial symptom. In other cases these symptoms developed later, and were usually due to an associated periprostatitis. Neuralgias referred to surrounding regions, as lumbago, sciatica, etc., were usually due to the pressure of propagated masses upon surrounding nerves. The writers conclude that hematuria results from the propagation of the cancer to the bladder or posterior urethra. In 40 per cent. of their cases the duration between the first appearance of symptoms and the fatal termination was not more than six months. Early diagnosis was impossible in at least half of the cases. Often the cancerous process is far advanced at the time of the appearance of the first symptoms. There are, however, some cases in which rectal palpation gives the impression that the prostate alone is involved, and it is only in these that extirpation should be tried, even then only after endoscopic examination of the posterior urethra and bladder. Of 5 cases reported in which recurrence had not taken place up to the time of publication only 2 were sufficiently followed to be at all reliable, 1 of them for nine months and 1 for eight months. Up to the present they have not had a single case of definite cure.

The Technique of Exposure and Excision of the Cervical Sympathetic.—Sebileau and Schwartz (*Rev. de chir.*, 1907, xxvii, 161) make their incision along the anterior border of the sternomastoid muscle, from the mastoid process to the level of the hyoid bone. The incision should be made rather a little back of the anterior border of the muscle in order not to damage the posterior lobules of the parotid gland. When the sheath is divided the anterior edge is grasped by forceps and carefully dissected from the muscle anteriorly and from the deep surface of the muscle. The sternomastoid is then strongly retracted posteriorly, making the spinal accessory nerve which lies under the sheath tense and slightly prominent The nerve is then liberated without difficulty and is in no further danger. Moreover, the sheath of the parotid is unopened and the gland need not be seen. One can expose the sympathetic either below or above the spinal accessory. The latter route is the more difficult, although one cannot expose fully the superior cervical ganglion. In the high exposure the sternomastoid is more adherent to its thickened sheath, the connective tissue is more dense and less supple, the bloodvessels are exposed and retracted with greater difficulty, and finally one must dissect close to the transverse process of the atlas in the obscure depths of the vertebropharyngeal space. The lower operation, therefore, is better.

The deep layer of the sheath of the sternomastoid may be divided on a grooved director posterior to the bloodvessels which are masked by it. This is done externally to the line of the anterior tubercles of the transverse processes of the vertebræ, on a grooved director. This is aided by the marked prominence in the depth of the upper part of the wound of the first transverse process. The vascular nervous sheath is then freed by the use of a grooved director. Only the vein should be caught by the retractor, lest the sympathetic be masked by the other contents of the vascular sheath, to which it is adherent by its own thin sheath as it lies underneath. The sympathetic nerve is attached to the prevertebral muscles under the carotid. The nerve with its ganglion is sometimes replaced by a plexiform arrangement. One sees coming from it internally and below an important branch, the superior cardiac nerve. In order to disengage the head of the superior ganglion, it is necessary to go deeply into the cavity under the parotid gland.

The Operative Treatment of Wryneck.—GERDES (*Zentralbl. f. Chir.*, 1907, xxxiv, 145) says that while the total or partial extirpation of the contracted sternomastoid, the operation of Mikulicz, has produced good results in the hands of some surgeons, recurrences have occurred in the hands of others. Trendelenburg emphasized the defective cosmetic effect and recommended, in addition to the tenotomy of the sternomastoid, the division of the cervical fascia. Wullstein proposed, besides extirpating the affected muscle, to shorten the stretched one of the opposite side. Other muscles than the sternomastoid are involved, as the scaleni, levator anguli scapuli, and the acromial portion of the trapezius. Next to the sternomastoid the anterior scalene is most frequently involved. Gerdes describes his method of dividing the sternomastoid and the anterior scalene muscles. A transverse incision 5 to 6 cm. long is made a finger's breadth above the clavicle, beginning over the sternal portion of the sternomastoid. After dividing both origins of the muscle, the cervical fascia posterior to it is opened freely and the external jugular vein exposed. The omohyoid muscle is retracted upward and outward and the external jugular vein inward. The anterior scalene muscle is then exposed with the phrenic nerve lying on it and the brachial plexus external to it. After careful isolation of the muscle from these structures it is divided on an elevator or similar instrument just above the subclavian artery, which it covers. If necessary, by enlarging the wound, the scalenus medius may also be divided. The small wound is packed with gauze for forty-eight hours and is then permitted to heal by granulation. In about four days passive and active movements are begun and are continued for three to six weeks. The cosmetic and functional effects are satisfactory even in old cases, so that in Gerdes' judgment this is a better operation than that of Mikulicz.

The Pathology and Treatment of Neuralgia, Particularly by Neurosarkokleisis.—BARDENHEUER (*Jour. de chir. et annal. de la Soc. Belge de chir.*, 1907, vii, 72) says that exceptionally medical treatment is followed by a cure, while the different operations, except the removal of the Gasserian ganglion, give only about 20 per cent. of cures and 80 per cent. of recurrences. The affection has been ascribed to various causes, as tumor formation in the interior of the nerve, to changes in the internal coats of the arteries of the nerve, to changes in the blood supply of the nerve from vasomotor disturbances, and to disturbances of the venous circulation at the base of the skull. Bardenheuer also believes that the cause lies in disturbances in the circulation in the veins which accompany the nerves through the bony canals by which they leave the skull, the spine, and the bones of the face. In 8 operations for sacro-iliac joint disease he observed that the pain did not result from an extension of the tuberculous process, but simply from a passive, pernicious, venous hyperemia. The cure of the joint disease was simultaneous with the disappearance of the sciatica. In 5 cases of facial neuralgia he found the trunk of the nerve markedly inflamed at its exit from the canal. He explains this condition as follows: In consequence of exposure to cold, trauma, friction, alveolodental periostitis, etc., a peripheral perineuritic hyperemia develops up to the osseous canal where the stasis is arrested by the bone. Repetition of this phenomenon produces an attack of neuralgia from compression in the canal. In time the hyperemia traverses the canal to the roots of the nerve and the ganglion. His arguments are as follows: Each time that he operated he established the existence of the venous hyperemia, the pain disappeared immediately after each operation, the cure lasted six to eight years in all cases, no damage was done to the nerve, and the sensation was intact afterward.

Bardenheuer recommends a new method of treatment which he calls neurosarkokleisis. It consists in removing one of the walls of the bony canal and transposing the nerve to the soft tissues. This resulted in complete success in 8 cases of sciatica and 4 cases of facial neuralgia. A fifth case of the latter condition recurred because the lower jaw was broken, with a wound opening into the mouth. This wound healed by second intention, and, therefore, with many adhesions to the nerve. He attacks the first division of the nerve at the supra-orbital foramen, the second division by removing the roof of the infraorbital canal in the floor of the orbital cavity, and the third division by removing the covering of the whole of the dental canal.

A New Method of Dressing Oblique Fractures of the Leg.—DESGUIN (*Jour. de chir. et annal. de la Soc. Belge de chir.*, 1907, vii, 78) offers a new apparatus for the correction of deformity and the maintenance of reduction in these frequently troublesome fractures. He says, however, that he is a frank partisan of the open operation for these cases and believes that a complete cure, from an anatomical and functional point of view, can be obtained only in this way. Unfortunately operation requires favorable conditions that cannot always be combined in a given case, such as a convenient place, proper assistance, appropriate material, and anesthesia. The greatest difficulty in the non-operative treatment is to obtain suitable reduction of the fragments, and the greatest factor in accomplishing this is extension. Desguin offers an apparatus which maintains reduction, and at the same time permits motion in the knee and ankle, so that the function is little disturbed in these joints as well as in the muscles which will not atrophy. It favors the circulation, thus maintaining the vitality and helping in the union of the broken bones.

The apparatus consists essentially of two inferior plates, which are fixed to the limb below the fracture by a cuff of plaster of Paris. Two superior plates are similarly fixed to the limb above the fracture. Each inferior plate is furnished with a kind of rack fixed transversely and containing several deep notches. Each superior plate carries also a transverse plate, but this is perforated with four or five rectangular openings. These transverse plates, the upper and lower, are held together by two long bolts, with nuts on each side of the leg, fitted into the rectangular openings of the upper plates and the corresponding notches of the lower. The paper is admirably illustrated with fifteen photographic plates. Desguin has employed the apparatus in three very bad cases with very satisfactory results. He does not claim, however, that it makes the treatment of these fractures simple, and believes that an open operation is easier. Any treatment of these fractures is difficult, as is shown by the bad results generally obtained. He has simply tried to improve the non-operative treatment.

THERAPEUTICS.

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The Treatment of Hyperchlorhydria.—L. Furst (*Wien. med. Presse*, 1906, No. 20, p. 1091), in this affection advises meals of small bulk and of non-irritating foods; of those allowable, he mentions cocoa, thin and purée soups, lean meat cooked rare, fish (the lean portions only), stewed fruits, and various green vegetables. Condiments, sea food, fat meats, acid salads, and dried fruits are to be forbidden. Potatoes, sweets, and fresh bread in small amounts may be permitted. Sparkling, acidulated waters with a little red wine and light beer may be taken. By diet regulation the excess of hydrochloric acid and the excessive mucus may be diminished, while the dilatation and gastric atony may be benefited. In connection with such a diet as that mentioned Furst advises the administration of alkalies to combat the eructations, nausea, flatulence, etc.; here, if these symptoms are merely transient, sodium bicarbonate is advised, but if continued treatment of these manifestations is necessary he prefers the alkaline mineral waters, such as Vichy. The waters should be taken in sufficient amount, about a half-hour after each meal.

Hepatic Extract in Atrophic Cirrhosis.—J. Carles (*Revue de thérapeutique*, 1906, No. 11, p. 387.) reports the history of a patient suffering from atrophic cirrhosis with ascites. Upon admission to the hospital paracentesis was performed and about seven quarts of fluid was withdrawn. About seven hours later a second tapping seemed necessary, but hepatic extract was prescribed instead. Marked and rapid diuresis resulted and the general state of the patient became much improved. This form of treatment, according to the observers, should give excellent results in the precirrhotic stage of this disease. Other clinicians have employed the hepatic extract without accident and with good effect. One reports a series of cured cases of cirrhosis, and states that those most amenable to this form of treatment are those affected with ascites due to mechanical causes.

The Internal Employment of Adrenalin.—S. KREUZFUCHS (*Wien. med. Presse*, 1906, No. 17, p. 921) states that adrenalin has distinct limitations as an internal medicament, being contraindicated in arterial hypertension and, in all instances, for continued administration. He has employed it in an instance of angioparalytic hemicrania with good results, the headache having ceased within a half-hour and sleep being induced, from which the patient awoke refreshed. In the angiospastic type of the affection the drug is contraindicated and it is useless in simple headaches. In nervous dyspepsia associated with painful paroxysms and nausea a pill containing 1/120 grain caused a quick relief of the symptoms. Adrenalin, while a drug possessing only limited applications, seems to be an efficient remedy in the relief of nausea and vomiting.

The Injection Treatment of Neuralgia.—According to P. KRAUSE (*Allg. med. Central-Zeitung*, 1906, No. 16, p. 291) various agents, such as antipyrine, methylene blue, cocaine, alcohol, ether, osmic acid, etc., have been employed in this connection. He warns against the injection, particularly of the last three, into mixed sensory and motor nerve trunks, on the ground that permanent paralysis may be produced. He has used 0.1 to 0.2 per cent. of stovaine in 8 per cent. saline solution to which 1 to 1000 adrenalin chloride (1 part of the latter to 300 to 600 parts of the stovaine solution) has been added. The adrenalin causes a local anemia which is succeeded by a hyperemia. The treatment has temporarily relieved two instances of sciatica and has effected permanent cure in two patients afflicted with trigeminal neuralgia, the injections having been made at the points of emergence of the nerve. In the cases of sciatica 1500 minims were injected, in the others only 300 minims. The injection, in addition to a local anesthetic action, has a mechanical effect upon the nerve owing to the considerable amount of fluid injected. In the author's hands intraspinal injections of stovaine have relieved the lancinating pains of locomotor ataxia in two instances.

A Case of Veronal Poisoning.—JOHN GERMANN (*Jour. Amer. Med. Assoc.*, 1906, No. 26, p. 1999) reports an instance of fatal poisoning from 200 to 250 grains of veronal. The drug was taken because of the impatience of the patient to get to sleep. When found he could not be roused. The pulse was 90, the respiration 24. A half-hour before death, seventy-nine hours later, the pulse was 152, the respiration 44, the temperature 108.5°. During the last twenty-four hours of life respiration was irregular and stertorous and the patient was cyanosed. The quality of the pulse was good until the last four hours. After twenty-four hours the urine contained albumin and 33 per cent. of this substance was present just before death. The patient remained in a comatose condition until death supervened. Postmortem, the brain was only slightly œdematous, but this with the other organs was markedly congested; the blood was chocolate colored.

The Employment of Physical Agents after Operations for Gallstones.—SCHURMAYER (*Therapeutische Monatshefte*, 1906, xx, 483) considers that there is much more in the treatment of cholelithiasis than is afforded by surgery. The painful gastric crises which sometimes occur, he treats by early morning lavage with hot water, followed by the introduction into the stomach of a pint of 1 to 1000 silver nitrate solution, which is allowed to remain in the organ for from ½ to 2 minutes; after this solution is withdrawn the viscus is again washed with water. As a substitute for the silver solution he sometimes employs a mixture of a quart of lukewarm water and a half-ounce of chloroform. Intragastric faradism is also employed and by this means the flow of bile is excited; following this measure a diminution in the size of the liver, a disappearance of the pain, and an increased appetite may be observed. As a local application Schurmayer prefers the electric thermophore; in certain instances the electrostatic bath and massage achieve good results. In excessive meteorism the faradic current, one large electrode being applied to the back, the other to the abdomen, will give relief. Constipation, which is a common sequence of operation, should be treated by means of massage and respiratory gymnastics, and for the right nephroptosis, which is not an unusual sequel, the employment of vibration is advised.

Beer Yeast in Infantile Gastro-enteritis.—SITTLER (*Münch. med. Woch.*, 1906, No. 36, p. 1761) has used beer yeast in infantile gastro-enteritis in doses of 15 to 45 grains daily of the dry yeast, the amount depending upon the age of the patient. The patient's milk is stopped and sugar solution is substituted, and, if necessary, gastric and intestinal lavage are employed. The yeast has yielded excellent results in cases in which there has been excessive intestinal fermentation; the fœtor of the stools is diminished and their number is lessened as a result of its action. Merely the administration of the yeast suffices to effect a cure in some instances. When it fails calomel and astringents are employed as adjuvants. The treatment never increases the diarrhœa, and it is indicated in severe instances of the disease as well as in those of mild type.

The Treatment of Paroxysmal Tachycardia.—HAY (*Edin. Med. Jour.*, 1906, xxi, 40) states that in order to prevent recurrence of the paroxysms we should endeavor to restore the normal stability of the cardiac mechanism. Breathing exercises should be undertaken and all sources of reflex irritation, such as the kidneys, digestive tract, or uterus, should be treated, if necessary. Tea, coffee, and tobacco should be forbidden; during attacks the patient should be kept in bed and on a light diet. In the presence of nervous irritability the bromides are useful. Attacks sometimes may be cut short by such mechanical methods as holding the elbows tight to the chest, forcibly compressing the abdomen, and holding the breath after a deep inspiration. Pressure upon the vagi may be tried and deep respiratory efforts may cause a cessation of the paroxysm. Of drugs, digitalis, by mouth or hypodermically, is most often prescribed, but the attacks often persist in spite of heroic dosage. It is probable, however, that, even though it may not cut short the paroxysm, the drug is beneficial, since it has been shown to have a specific action on the auriculoventricular bundle. If portal congestion and venous stasis are present they should be relieved by calomel and the salines, and ice over the precordium, mustard poultices, and morphine should be used to mitigate pain and distress. The height of the blood pressure should always be estimated and taken into account, because, as a rule, the arteries are contracted upon their diminished contents and give erroneous impressions to the fingers. If there is increase of blood pressure the hippurates, benzoates, and nitrites will be of value. When contractility is impaired, as shown by the alternating pulse and visceral engorgement, calcium chloride may be given with advantage. In Hay's opinion treatment at present is largely empirical, and our endeavor should be to find a drug or combination of drugs which will depress the function of stimulus production that is possessed by the muscle fibers which join the auricles to the ventricles.

Alcohol and Fats in Diabetes.—ROMME (*La presse méd.*, 1906, No. 89, 712) has come to the conclusion that the acetonuria which occurs in diabetic patients who are subsisting upon a diet of proteid and fat, and who are getting no carbohydrates, is due to the presence of the fatty elements of their regimen. The healthy individual, when put upon a diet of fat and proteid only, exhibits an increased elimination of acetone, and this augmentation is more marked in the diabetic. To obviate the difficulty the author suggests that alcohol be substituted for the fat. The quantity should be about 10 drams daily in the form of wine, beer, tea *au rhum*, etc. The diabetic patient bears the alcohol well and it is likely to cause neither excitation nor depression.

Dechloridation in Nephritis.—M. BOURGET (*Revue médicale de la Suisse Romande*, 1906, No. 4, p. 249) considers this mode of treatment merely a fad in therapeutics and of little value in the diminution of dropsical conditions. According to Bourget œdema may be effectually lessened by the administration of purgatives and cardiac tonics in connection with the potassium salts, the acetate being an especially efficient diuretic. It is easily transformed into potassium carbonate, which is eliminated as the chloride. At the same time dechloridation may be performed by having the patient take his potatoes without salt.

Copper Solutions in Intestinal Amœbiasis.—WILLIAM R. MOULDEN (*The Medical Record*, 1906, No. 1864, p. 132) has employed intestinal instillations of copper sulphate solution of a strength of not over 1 in 6000 at temperatures of 106° to 110° F. in amœbic infections, with excellent results. The instillations were given every twelve hours, the buttocks being raised so as to allow complete irrigation of the colon, especially at the cecum, where the amœbæ are usually present in large numbers. The colon was thoroughly irrigated with sterile water until the return was perfectly clear. After draining off all the surplus water the bowel was slowly filled with the copper solution by starting with the reservoir on a level with the anus and slowly elevating it as the bowel accommodated itself to the pressure, thus distending it to its fullest capacity without exciting contraction of its muscular walls. The solution was retained usually without difficulty for twenty minutes. At 2 o'clock in the morning each patient was given 1½ ounces of saturated magnesium sulphate solution, with the object of washing from the membrane by exosmosis as many of the amœbæ as possible, and, by clearing out the digestive residue, securing a clean tract for the day's work. The results of the copper treatment were compared with those obtained in a similar series of patients treated by quinine irrigations, much to the disadvantage of the latter. Moulden concludes that copper seems to have a more or less selective action upon Amœba coli as well as upon the lower forms of vegetable life, such as the algæ; that copper solutions are far better borne than those of quinine; that patients recover much more rapidly than under any other treatment known to him; and that the cure is permanent, provided the treatment is continued for a reasonable time after the disappearance of the organisms from the stools. As the patients treated number over 200 it is reasonable to conclude that the method is, at least, deserving of a thorough trial.

Thyminic Acid in Gout.—DR. A. BRETON (*La presse médicale*, 1906, No. 27, p. 211)) states that uric acid, according to the latest theories, does not circulate in the blood in its free state but in combination with thyminic acid, which is an amorphous brown powder, feebly acid, of insipid taste, and soluble in water. It is able to hold in solution an equal weight of uric acid at 68° F., and at body temperature this property is augmented by 50 per cent. The author concludes that gout is the result of a deficiency of thyminic acid in the serum, and he accordingly prescribes the former in this disease in doses of 10 grains per day. In eight patients such dosage has increased to a considerable extent, the output of uric acid and urea, the general condition has become ameliorated and the joints, previously stiff, have become much more supple.

Radium.—ROBERT ABBE (*Jour. Amer. Med. Assoc.*, 1906, xlviii, 183) concludes a paper upon the therapeutics of radium as follows: (1) The action of radium resembles that of the Röntgen rays. (2) It differs specifically and will cure some lesions which resist the latter. (3) It is applicable to the interior cavities of the nose and mouth, inaccessible to the Röntgen rays. (4) It is curative in most superficial epithelial cancers and lupus. (5) It has failed of curative action as yet in forty test instances of grave internal cancer. (6) It promises interesting results in other surgical conditions under study.

Heliotherapy in Psoriasis.—M. GUHR (*Berl. klin. Woch.*, 1906, No. 17, p. 536) has observed a cure of this obstinate cutaneous affection in a boy aged thirteen years, who was accustomed to take fresh water baths followed by lying in the sunshine, and has investigated the subject. According to him the treatment of psoriasis by means of sunlight is as follows: The patient's head being shaded, he exposes different parts of the body to the sun, the position being changed from time to time. The actinic rays act especially well in the spring when the skin has lost some of its pigmentation during the darker season. The duration of the exposure is from twenty to fifty minutes; gradually an abundant perspiration is set up, this may be increased by wrapping the patient, after a bath, in a linen sheet. Each exposure is followed by some hydrotherapeutic procedure, such as a Scotch douche or a partial bath, at the termination of which a promenade lasting a half, hour is taken. At first the treatment is followed by cutaneous sensations of heat, or itching; these disappear later. The author's experimentation seems to show that the treatment is of considerable practical value.

The Treatment of the Headache of Anemia.—Wilfrid Harris (*Practitioner*, 1906, lxxvii, 35) considers the headache of anemia to be due chiefly to the deficiency of hemoglobin, and consequent tendency to œdema, with the simultaneous starving of the meninges. It is usually frontal but may be vertical. In certain individuals of lymphatic type, subject to anemia, chilblains, and cold extremities, there may be a deficiency of calcium salts in the blood, and the administration of the calcium salts may be of great service in relieving the headaches of such patients. The lactate should be given in doses of 15 to 20 grains, three times a day. In this connection Harris states that the headaches of the morning after copious libations have been ascribed to a lack of calcium salts in the blood, these having been precipitated by the organic acids contained in the wine. This "toper's headache" may be quickly removed by a dose of 20 to 30 grains of calcium lactate shaken up with a little water.

The Use of Opsonic Factors in Therapeutics.—Ronald E. French (*Practitioner*, 1906, lxxvii, 64), in a paper upon the vaccine treatment of various infections, tuberculous, staphylococcic, etc., states that the ideal aim should be to obtain a cumulation of positive phases, and to avoid ever giving an injection during the negative phase. To do this it is necessary to take the opsonic index at regular intervals and to plot the results on a curve. The most suitable cases for injection treatment are those whose opsonic index is low and whose focus of infection is distinctly localized, for it is easier to raise a low opsonic index than to produce a rise in one that is already high. A tuberculous patient, who has an evening rise of temperature, should be kept in bed until the temperature is normal before inoculations should be begun. For inoculation, vaccines of known strength should be prepared, as the most satisfactory results are obtained from vaccines derived from the organism cultivated from the patient's own lesion, and standardized so that a given unit of volume shall contain either the dead bodies of a definite number of bacteria, or a definite weight of bacterial protoplasm. The vaccines in use at present are watery emulsions of bacterial cultivations diluted to contain some convenient number of bacteria, *e. g.*, 500,000,000 per c.c., sterilized by heating to 65° C. for an hour and finally sealed in capsules in doses of 1 c.c. For tuberculous patients, Koch's tuberculin (T. R.) diluted with 0.75 per cent. saline is used, previous sterilization being necessary. After the inoculation, which should be given with careful attention to asepsis, there is usually no local reaction. In a series of injections the first should be small; French gives as an initial dose 0.0002 milligram of T. R. or 250,000,000 cocci. If the reaction is satisfactory the dose need not be increased, but French recommends that it be doubled in adults in most instances. Too large dosage is indicated by a prolonged (two weeks or more) negative phase and by a lengthening of the successive negative phases. If the latter get successively shorter the dose is correct or too small; if it is too small the positive phases will not be well marked and the patient's progress will not be good. French, as a result of his observations, concludes that, although vaccine treatment stimulates the body resistance to infection, alone it will bring about recovery in but few instances. Other methods of treatment must be employed in connection with it. Surgical foci should be removed but not until the opsonic index has been increased, and it is strongly recommended that operations, particularly on tuberculous patients, should be performed only during the positive phase following a preliminary injection of tuberculin. In acute processes the inoculations are useless, but in chronic localized infections it is usually possible to increase the patient's resistance and aid nature to effect a cure.

PEDIATRICS.

UNDER THE CHARGE OF

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OF PHILADELPHIA.

An Improvement of Kilmer's Abdominal Belt for Whooping-cough.—Such general satisfaction has been expressed by physicians who have used the elastic abdominal bandage originally suggested by KILMER, of New York, for the mitigation of the cough and vomiting of whooping-cough, that a simplified improvement upon the earlier design is well worth noticing (*Archives of Pediatrics*, February, 1907, p. 112). The original belt was composed of a long strip of silk-elastic webbing placed over a stockinette band; and this, while efficacious, was found to be too warm for comfort, besides being rather expensive. The new design is made of linen with a strip of elastic-silk webbing two inches wide inserted on each side. The belt laces in the back and is to be worn over the undershirt or band. The width of the band should be four to five inches for infants and five to eight inches for older children. The length of the belt should be three inches less than the circumference of the child's abdomen at the navel, thus allowing for a necessary amount of constriction when laced. If the first degree of constriction is not sufficient to produce a moderation of the cough and a complete cessation of vomiting the belt should be laced tighter. These belts can be made at a few hours' notice by any truss-maker, and should cost not more than from one dollar and a half to three dollars.

The Presence of Spirochetæ of Schaudinn in the Ocular Lesions of Syphilis.—In two heredosyphilitics, one stillborn and the other aged four weeks, SCHLIMPERT (*Deut. med. Woch.*, 1906, Nr. 36, p. 1452) has found spirochetæ in the conjunctiva, sclerotic and cornea, in the iris and choroid, and in the muscles of the eye and the lacrymal sac, confirming the opinion of certain authors upon the non-immunity of the lacrymal gland to the virus of syphilis. In both cases, but to a variable degree, the conjunctiva and cornea showed an infiltration of small cells, the choroid was congested and infiltrated, while the extrinsic muscles of the eye presented the lesions of myositis. Most frequently the organisms were found within the vessels and free in the blood. Schlimpert believes that this myositis, which he has found in his two cases, and which seemed to be determined by the spirochetæ, is the cause of the strabismus which is found so frequently with heredosyphilitics, reaching a proportion of 40 per cent. according to Fournier, or from 14 to 15 per cent. according to Huguenin.

The Assimilation of Iron in the Nursling.—Krasnogorsky (*Jahrb. f. Kinderheilk.*, 1906, xiv, 651) has studied the degree of assimilation of iron contained in human milk, in goats' milk, in spinach, in the yolk of egg, and in certain ferruginous preparations, such as ferratin. In all cases the iron was estimated in the substances studied and in feces and urine. The iron of human milk was absorbed in the proportion of 80 per cent., and 75 per cent. was assimilated. For goats' milk these figures were respectively 33 per cent. and 28 per cent. for the raw milk, and 15 and 9 per cent. for boiled milk. The iron of spinach is absorbed in a proportion of 64.2 per cent. and 61.5 per cent. is assimilated. The yolk of egg gives figures of 64.9 per cent. and 61.9 per cent. Finally for ferratin Krasnogorsky finds 23.78 per cent. for absorption and 23.39 per cent. for assimilation. The conclusion from this study, therefore, is that the iron contained in food is more completely absorbed and is retained in larger proportion than the iron of ferruginous preparations.

Changes in the Percentage of Neutrophiles during the Incubation of Measles.—According to the classification of Arneth, the neutrophiles include six types according as their nucleus is single or composed of two, three, four, five, or even more lobes. In the normal state, in children, the percentage of these different forms averages 36 for the mononuclear type, 45 for the bilobed, 15 for the trilobed, and 3 for the multilobed forms. Flesch and Schlossberger (*Jahrb. f. Kinderheilk.*, xiv, 724), studying these forms during the incubation of measles, have found that these proportions are very characteristically modified from the figures obtained in health.

In 2 cases, four days before the appearance of Koplik's sign, they found the percentage of neutrophiles with simple nucleus increased to from 63 to 71, and attaining even 80 and 85 on the eve of the appearance of the buccal eruption. In 2 other cases, two days before the appearance of Koplik's spots, the proportion of these neutrophiles was 81 and 85 per cent. Finally, in a case in which the Koplik sign was absent, these cellular forms reached 60 per cent. on the fourth day before the exanthem appeared. This hematological sign appears, therefore, to possess a real value. It is, moreover, easy to observe, since it requires only an examination of the dried blood treated with the Jenner or triacid stain, without the necessity of a complete numeration. If found before the appearance of Koplik's sign, it would aid greatly in permitting the earlier isolation of impending cases, the value of which in prophylaxis has been already so greatly enhanced by the recognition of Koplik's discovery.

A Diagnostic Sign of Pertussis.—Referring to the difficulty in diagnosticating pertussis in very young infants in whom the cough is little characteristic and often difficult to provoke, Triboulet (*Revue mens. des maladies de l'enfance*, March, 1907, p. 138) describes a sign to which he attaches diagnostic importance. He forcibly depresses the base of the tongue, so as to see the lower part of the pharynx and if possible the tip of the epiglottis; the manœuvre often determines the enucleation from the pharynx of a globule of opaline mucus coming from the larynx, of a characteristic appearance not observed in any condition other than whooping-cough. He describes a case in which he was thus enabled to make a correct diagnosis based upon this sign. The infant was four months old, living in the country in an isolated farmhouse, from the immediate vicinity of which he had never been removed. No suspected person had come in contact with the infant, and the physician of the place asserted that no case had existed in the near or remote neighborhood for a long time. After the diagnosis was made it was discovered that the wet-nurse, who had been brought from Paris, had left her own baby, who had been suffering from the disease. In this case the direct mouth-to-mouth transmission of the disease had doubtless been effected through the intermediary of the wet-nurse's nipples.

Relapses in Measles.—E. WEILL and L. DAUVERGNE (*Lyon méd.*, 1907, No. 3, p. 98) report an interesting example of two relapses of measles observed in an infant, aged five years. The primary attack occurred on May 15, 1906, and presented the classic picture of measles of moderate intensity. The eruption appeared normally, lasted four or five days, and then disappeared progressively. On June 13, the child, who had shown for six days a little evening elevation of temperature, presented a second eruption localized especially on the face, with a buccal exanthem, coryza, and lacrymation; the eruption lasted only thirty-six hours and was not so intense as the first. Between these two eruptions of measles the child presented an urticaria, six days after admission to the hospital, associated with fever which oscillated about 102° for twelve days. This eruption was attributed to a prophylactic injection of antidiphtheritic serum given on entrance to the hospital. About four days after the first relapse of measles the child again became feverish and the next day, June 19, a rubeolic eruption appeared, this time upon the face and thorax. In this second relapse the eruption was more intense, lasted longer (June 20 to 27), and was followed by a general furfuraceous desquamation. There was no angina, no abnormal rapidity of pulse, no albuminuria, nor any symptom suggestive of scarlatina, and the eruption was characteristically morbillous. Convalescence was normal and the child left the hospital perfectly well on July 18.

This observation appears to be conclusive as to the possibility of relapses in measles. The occurrence of two consecutive relapses is certainly rare, since Weill and Dauvergne have been able to find no similar case in the literature. In all the cases reported there was only a single relapse at a more considerable interval, ordinarily three or four weeks. The mechanism of these relapses remains here, as in other cases, purely hypothetical. It does not seem possible to admit an endogenous reinfection, such as is present in the typhoid relapse. It appears more reasonable to assume fresh inoculations, both because the organism, though unisolated, is known to have an ephemeral vitality, and because such relapses have been observed for the most part in hospitals or in large families where several children have the disease about the same time.